



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/541,010	06/28/2005	Gunter Saliger	66489-061-7	9017
25769 7590 03/17/2009 DYKEMA GOSSETT PLLC FRANKLIN SQUARE, THIRD FLOOR WEST 1300 I STREET, NW WASHINGTON, DC 20005				
EXAMINER				
SINGH, SUNIL K				
ART UNIT		PAPER NUMBER		
3732				
MAIL DATE		DELIVERY MODE		
03/17/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/541,010

**Applicant(s)**

SALIGER ET AL.

**Examiner**

Sunil K. Singh

**Art Unit**

3732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date 01/13/2009
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 – 5 and 8 – 9 and 13 – 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rekow (USPN 5,273,429) in view of Perot et al. (US 6,398,554).

Regarding claims 1, 8 – 9, and 13 – 14, Rekow teaches a method of fabricating a suprastructure for an implant via digital model descriptions with the steps of:

- recording a clinical situation as digital data (Figure 8, Element 40);
- analyzing this situation and determining the implant axis (42);
- computing the optimum shape (48);
- fabricating the elements from blanks (50);
- one element of the suprastructure comprising a cap and a reduced crown;
- calculating the final size of the suprastructure with its final dimensions where the exterior dimensions are smaller than the exterior dimensions while retaining the mating surface (Detailed Description of Invention)

With respect to claims 2 - 4, Rekow substantially discloses a mating surface between two elements of the suprastructure (Figure 9) and two parameters, namely the tilt angle (78) and the angle of rotation (84), in addition to optimizing the tilt angle (78).

In terms of claim 5, Rekow discloses a shape of said blank and suprastructure to be described in the coordinate system of the geometry for attachment (Paragraph 3 of Detailed Description).

NOTE: Applicant does not define 'reduced crown,' thus examiner takes it to mean a crown of relatively smaller size. However, Rekow fails to teach automatically separating the suprastructure into a first element and a second element.

Perot teaches a method that includes recording a separate 1<sup>st</sup> element (R1) and a 2nd element (R2). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Rekow to separate the suprastructure into a first element (crown) and a second element (abutment) in order to modify each element resulting in a more precise fit between the two elements and between the elements and the patient's oral cavity. Furthermore, it would have been obvious to modify this method to make it done automatically, since it has been held that broadly providing a mechanical or automatic means to replace manual activity which has accomplished the same result involves only routine skill in the art. See *In re Venner*, 120 USPQ 192.

Claims 6 – 7 and 11 – 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rekow in view of Perot et al. and further in view of Schroeder (USPN 5,359,511).

Rekow/Perot teaches a method as above, but fails to adequately disclose a characteristic whereby the determination of the axis of the implant is effected interactively, and in such a system where the suprastructure comprises a crown and an

abutment, where the abutments are connected by a common frame construction. However, Schroeder does disclose such a method (Detailed Description of Invention, specifically columns 3 - 6). It would have been obvious to one of ordinary skill in the art to modify Rekow/Perot's method in view of Schroeder user - interaction in order to provide for a more adaptive product.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rekow in view of Perot et al. and further in view of Rathke (USPN 6,968,247).

Rekow/Perot teaches a method as above, but fails to adequately disclose a third element, being a veneer, to be fabricated by said method. However, Rathke does teach a veneer to be fabricated by a digitized method as above. It would have been obvious to one of ordinary skill in the art to modify Rekow/Perot's method in view of Rathke's in order to make a more aesthetically pleasing abutment system.

### ***Response to Arguments***

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sunil K. Singh whose telephone number is (571) 272-3460. The examiner can normally be reached on Monday-Friday (Increased Flex Schedule).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris L. Rodriguez can be reached on (571) 272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

Art Unit: 3732

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

03/14/2009

/Sunil K Singh/  
Examiner, Art Unit 3732

/Ralph A. Lewis/  
Primary Examiner, Art Unit 3732